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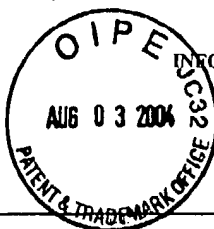
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ATTY. DOCKET NO.  
**MGH-004BUS**

APPLICATION NO.  
**09/822,585**



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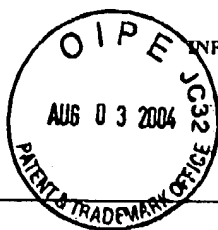
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
							YES NO
SS	*	WO 97 33515 A	9/18/97	PCT			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

SS	*	Adolphs, R., Tranel, D., Damasio, H., and Damasio, A. (1994). Impaired recognition of emotion in facial expressions following bilateral damage to the human amygdala. <i>Nature</i> 372, 669-672.
	*	Adolphs, R., Tranel, D., Damasio, H., and Damasio, A. (1995). Fear and the human amygdala. <i>J. Neurosci.</i> Sept. 15, 5879-5891.
	*	Aggleton, J.P., Burton, M.J., and Passingham, R.E. (1980). Cortical and subcortical afferents to the amygdala in the rhesus monkey ( <i>Macaca mulatta</i> ). <i>Brain Res.</i> 190, 347-368.
	*	Adler, L.J., Gyulai, F.E., Diehl, D.I., Mintun, M.A., Winter, P.M., and Firestone, L.L. (1997). Regional brain activity changes associated with fentanyl analgesia elucidated by positron emission tomography. <i>Anesth. Analg.</i> 84, 120-126.
	*	Aguirre GK, Zarahn E, D'Esposito M. A critique of the use of the Kolmogorov-Smirnov (KS) statistic for the analysis of BOLD fMRI data. <i>Magn Reson Med.</i> 1998 Mar;39(3):500-5.
	*	Albanese A, Minciocchi D. Organization of the ascending projections from the ventral tegmental area: a multiple fluorescent retrograde tracer study in the rat. <i>J Comp Neurol.</i> 1983 June 1;216(4):406-20.
	*	Altier N, Stewart J. Dopamine receptor antagonists in the nucleus accumbens attenuate analgesia induced by ventral tegmental area substance P or morphine and by nucleus accumbens amphetamine. <i>J Pharmacol Exp Ther.</i> 1998 Apr;285(1):208-15.
	*	Amaral, D.G., and Price, J.L. (1984). Amygdalo-cortical projections in the monkey ( <i>Macaca fascicularis</i> ). <i>J. Comp. Neurol.</i> 230, 465-496.
	*	Amorapanth P, LeDoux JE, Nader K. Different lateral amygdala outputs mediate reactions and actions elicited by a fear-arousing stimulus. <i>Nat Neurosci.</i> 2000 Jan;3(1):74-9.
	*	Apkarian A V, Darbar A, Krauss BR, Gelnar PA, Szeverenyi NM. Related Articles Differentiating cortical areas related to pain perception from stimulus identification: temporal analysis of fMRI activity. <i>J Neurophysiol.</i> 1999 Jun;81(6):2956-63.
	*	Arvanitogiannis, A., Waraczynski, M., and Shizgal, P. (1996). Effects of excitotoxic lesions of the basal forebrain on MFB self-stimulation. <i>Physiology and Behavior</i> 59(4/5), 795-806.
	*	Bain, G. T., and Kornetsky, C. (1987). Naloxone attenuation of the effect of cocaine on rewarding brain stimulation. <i>Life Sciences</i> 40, 1119-1125.
	*	Ballantine HT Jr, Cassidy WL, Flanagan NB, Marino R Jr. Stereotaxic anterior cingulotomy for neuropsychiatric illness and intractable pain. <i>J Neurosurg.</i> 1967 May;26(5):488-95.
	*	Bandettini, P.A., Wong, E.C., Hinks, R.S., Tikofsky, R.S., and Hyde, J.S. (1992). Time course EPI of human brain function during task activation. <i>Magn. Res. Med.</i> 25, 390-397.
✓	*	Barasi S. Responses of substantia nigra neurones to noxious stimulation. <i>Brain Res.</i> 1979 Jul 27;171(1):121-30.
		Date <u>1/20/04</u> Examiner <u>[Signature]</u>

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
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INFORMATION DISCLOSURE CITATION

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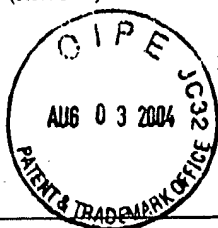
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
5	*		Barch, D.M., Braver, T.S., Nystrom, L.E., Forman, S.D., Noll, D.C., and Cohen, J.D. (1997). Dissociating working memory from task difficulty in human prefrontal cortex. Neuropsychologia 35, 1373-1380.			
	*		Basbaum AI, Fields HL. Endogenous pain control mechanisms: review and hypothesis. Ann Neurol. 1978 Nov;4(5):451-62.			
	*		Baune A, Sommer FT, Erb M, Wildgruber *, Kardatzki B, Palm a, Grodd W. Dynamical cluster analysis of cortical fMRI activation. Neuroimage. 1999 May;9(5):477-89.			
	*		Baxter, L.R., Schwartz, J.M., Phelps, M.E., Mazziotta, J.C., Guze, B.H., Selin, C.E., Gerner, R.H., and Sumida, R.M. (1989). Reduction of prefrontal cortex glucose metabolism common to three types of depression. Arch Gen Psychiatry 46, 243-250.			
	*		Becerra L, Breiter H, Jenkins L, Gonzalez a, Borsook D. Early Activation of Reward/Aversive Circuitry following Noxious Thermal Stimuli: Dissociation of Motivation-Emotion Circuitry from Sensory-Discriminative Circuitry (in preparation).			
	*		Becerra, L.R., Breiter, H.C., Stojanovic, M., Fishman, S., Edwards, A., Comite, A.R., Gonzalez, R.G., and Borsook, D. (1999). Human brain activation under controlled thermal stimulation and habituation to noxious heat: an fMRI study. Magnetic Res. in Medicine 41, 1044-1057.			
	*		Bechara, A., Damasio, H., Tranel, D., and Damasio, A.R. (1998). Dissociation of working memory from decision making within the human prefrontal cortex. J. Neurosci. 18, 428-437.			
	*		Behbehani MM. Behaviors. Prog. Neurobiol. 3:247-279. Behbehani MM. Functional characteristics of the midbrain periaqueductal gray. Prog Neurobiol. 1995 Aug;46(6):575-605.			
	*		Belliveau, J.W., Kennedy, D.N., McKinsey, R.C., Buchbinder, B.R., Weiskoff, R.M., Cohen, M.S., Vevea, J.M., Brady, T.J., Rosen, B.R. (1991). Functional mapping of the human visual cortex by magnetic resonance imaging. Science 254, 716-719.			
	*		Bench, C.J., Friston, K.J., Brown, R.G., Frackowiak, R.S.J., and Dolan, R.J. (1993). Regional cerebral blood flow in depression measured by positron emission tomography: The relationship with clinical dimensions. Psych. Med. 23, 579-590.			
	*		Bench, C.J., Friston, K.J., Brown, R.G., Scott, L.C., Frackowiak, R.S.J., & Dolan, R.J. (1992). The anatomy of melancholia - focal abnormalities of cerebral blood flow in major depression. Psych. Med. 22, 607-615.			
	*		Bennett, A.J., and Mayer, D.J. (1979). Inhibition of spinal cord interneurons by narcotic microinjection and focal electrical stimulation in the periaqueductal central gray matter. Brain Res. 172(2), 243-257.			
	*		Berkowitz, B.A., Cerreta, K. V., and Spector, S. (1974). The influence of physiologic and pharmacologic factors on the disposition of morphine as determined by radioimmunoassay. J Pharmacol Exp Ther. 191(3), 527-534.			
	*		Berns, G.S., Cohen, J.D., & Mintun, M.A. (1997). Brain regions responsive to novelty in the absence of awareness. Science 276, 1272-1275.			
	*		Bester, H. et al., "The Spino(trigemino) Pontoamygdaloid Pathway: Electrophysiological Evidence for An Involvement in Pain Processes. J. Neurophysiol. 1995 Feb; 73(2): 568-585.			
	*		Blackburn, J., Pfaus, J., & Phillips, A. (1992). Dopamine functions in appetitive and defensive behaviors. Prog. Neurobiol. 3, 247-279.			
	*		Blair et al., Dissociable neural responses to facial expressions of sadness and anger Brain (1999) 122, 883-893			
	*		Bernard JF, Huang of, Besson JM. Nucleus centralis of the amygdala and the globus pallidus ventralis: electrophysiological evidence for an involvement in pain processes. J Neurophysiol. 1992 Aug;68(2):551-69.			
	*		Blackburn, J., Phillips, A., Jakubovic, A., and Fibiger, H. (1986). Increased dopamine metabolism in the nucleus accumbens and striatum following consumption of a nutritive meal but not a palatable non-nutritive saccharine solution. Pharmacology Biochemistry and Behavior 25, 1095-1100.			
		Date	1/20/04	Examiner		

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(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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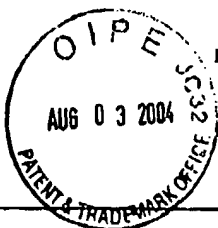
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## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

SS	*	Blackburn, J., Phillips, A., Jakubovic, A., and Fibiger, H. (1989). Dopamine and preparatory behavior: II. a neurochemical analysis. Behavioral Neuroscience 103(1), 15-23.
	*	Borod, J.C., Koff, E., Perlman-Lorch, M., and Nicholas, M. (1986). The expression and perception of facial emotion in brain-damaged patients. Neuropsychologia 24(2), 169-180.
	*	Borod, J.C., Koff, E., Perlman-Lorch, M., and Nicholas, M. (1985). Channels of emotional expression in patients with unilateral brain damage. Arch. Neurology 42, 345-348.
	*	Botvinick M, Nystrom LE, Fissell K, Carter CS, Cohen JD. Conflict monitoring versus selection- for-action in anterior cingulate cortex. Nature. 1999 Nov 11 ;402(6758): 179-81.
	*	Boxerman, J.L., Bandettini, P.A., Kwong, K.K., Baker, J.R., Davis, T.L., Rosen, B.R., and Weisskoff, R.M. (1995). The intravascular contribution to fMRI signal change: Monte Carlo modeling and diffusion-weighted studies in vivo. Magn. Reson. Med 34, 4-10.
	*	Boynton et al., Linear sysems analysis of functional magnetic resonance imaging in human V1, The journal of neuroscience, July 1, 1996, 16(13): 4207-4221..
	*	Bozarth MA, Wise RA. Involvement of the ventral tegmental dopamine system in opioid and psychomotor stimulant reinforcement. NIDA Res Monogr. 1986;67:190-6.
	*	Braver, T.S., Cohen, J.D., Nystrom, L.E., Jonides, J., Smith, E.E., and Noll, D.C. (1997). A parametric study of prefrontal cortex involvement in human working memory. Neuroimage 5(1), 49-62.
	*	Breiter HC, BecelTa L, Gonzalez RO, Huffman, EK, Harter K, Jenkins L, Comite A, Borsook D. Morphine activates reward circuitry in the human brain. (submitted to Neuron). (unpublished)
	*	Breiter HC, EtcoffNL, Whalen PJ, Kennedy W A, Rauch SL, Buckner RL, Strauss MM, Hyman SE, Rosen BR. Response and habituation of the human amygdala during visual processing of facial expression. Neuron. 1996 Nov;17(5):875-87 .
	*	Breiter, H.C., and Rosen, B.R. (1999). Functional magnetic resonance imaging of brain reward circuitry in the human. N.Y. Acad. Sci. 877, 523-547.
	*	Breiter, H.C., Rauch, S.L., Kwong, K.K., Baker, I.R., Weisskoff, R.M., Kennedy, D.N., Kendrick, A.D., Davis, T.L., Liang, A., Cohen, M.S., Stern, C.E., Belliveau, I. W., Baer, L., O'Sullivan, R.L., Savage, C.R., Jenike, M.A., and Rosen, B.R. (1996a). Functional magnetic resonance imaging of symptom provocation in obsessive-compulsive disorder. Arch. Gen. Psychiatry 53, 595-606.
	*	Brock, J.W., Ng, J.P., and Justice, J.B. Jr. (1990). Effect of chronic cocaine on dopamine synthesis in the nucleus accumbens as determined by microdialysis perfusion with NSD1015. Neurosci. Lett. 117, 234-239.
	*	Buckner, R.L., Petersen SoB., Ojemann, J.C., Miezin, F.M., Squire, L.R., and Raichle, M.E., (1995). Functional anatomical studies of explicit and implicit memory retrieval (aSk. I. Neurosci. 15, 12-29.
	*	Bushnell MC, Duncan GH, Hofuauer RK, Ha B, Chen JI, CalTier B. Pain perception: Is there a role for primary somatosensory cortex? Proc Natl Acad Sci U S A. 1999 Jul;96(14):7705-9.
	*	Cabanac, M. (1971). Physiological role of pleasure. Science 173(2), 1103-1107.
	*	Cabib S, Puglisi-Allegra S. Opposite responses of mesolimbic dopamine system to controllable and uncontrollable aversive experiences. J Neurosci. 1994 May;14(5 Pt 2):3333-40.
	*	Cadoni, C., Solinas, M., Chiara, G. (2000). Psychostimulant sensitization: differential changes in accumbal shell and core dopamine. Eur. J. Pharmacol. 388(1), 69-76.
	*	Cador, M., Robbins, T.W., and Everitt, B.J. (1989). Involvement of the amygdala in stimulus-reward associations: interaction with the ventral striatum. J. Neurosci. 30, 77-86.
✓	*	Cahill, L., Haier, R.J., Fallon, J., Alkire, M.T., Tang, C., Keator, D., Wu, I., and McGaugh, J.L. (1996). Amygdala activity at encoding correlated with long-term recall of emotional information. Proceedings Natl Acad. Sci. U.S.A. 93,8016-8021.
		Date <u>1/29/04</u> Examiner <u>[Signature]</u>



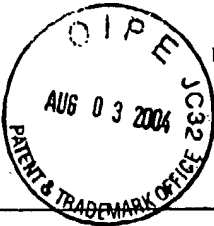
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Hans C. Breiter et al.FILING DATE  
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2862

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

5	*	CalTive P. The periaqueductal gray and defensive behavior: functional representation and neuronal organization. Behav Brain Res. 1993 Dec 20;58(1-2):27-47.
	*	Calder, A.J., Young, A.W., Rowland, D., Peitett, D.I., Hodges, J.R., and Etcoff, N.L. (1996). Facial emotion recognition after bilateral amygdala damage: differentially severe impairment of fear. Cognitive Neuropsychology 13, 699- 745.
	*	Carelli, R.M., Ijames, S.G., and Crumling, A.J. (Evidence that separate neural circuits in the nucleus accumbens encode cocaine versus "natural" (water and food) reward. J. Neurosci. 20(11): 4255-4266; June 2000.
	*	Carr DB, Sesack SR. Projections from the rat prefrontal cortex to the ventral tegmental area: target specificity in the synaptic associations with mesoaccumbens and mesocortical neurons. J Neurosci. 2000 May 15;20(10): 3864-73.
	*	Carrive P. The periaqueductal gray and defensive behavior: functional representation and neuronal organization. Behav Brain Res. 1993 Dec 20;58( 1-2):27-47.
	*	Carstens, E., Steizer, B., and Zilrunemann, M. (1988). Microinjections of glutamate or morphine at coincident midbrain sites have different effects on nociceptive dorsal horn neurons in the rat. Neurosci Lett. 95(1-3), 185-191.
	*	Casey KL, Minoshima S, Berger KL, Koeppe RA, Morrow TJ, Frey KA. Positron emission tomographic analysis of cerebral structures activated specifically by repetitive noxious heat stimuli. J Neurophysiol. 1994 Feb;71(2):802-7
	*	Casey KL, Minoshima S, Moltow TI, Koeppe RA. Comparison of human cerebral activation pattern during cutaneous warmth, heat pain, and deep cold pain. J Neurophysiol. 1996 Jul;76(1):571-81.
	*	Casey KL. Forebrain mechanisms of nociception and pain: analysis through imaging. Proc Natl Acad Sci U S A. 1999 Jul;96(14):7668-74.
	*	Chance, W.T., Foli-Nelson, T., Nelson, J.L., and Fischer, J.E. (1987). Neurotransmitter alterations associated with feeding and satiety. Brain Research 416, 228-234.
	*	Chapman CR, Gavrin J. Suffering: the contributions of persistent pain. Lancet. 1999 Jun 26;353(9171):2233- 7.
	*	Chiou, L.C., and Huang, L. Y. (1999). Mechanism underlying increased neuronal activity in the rat ventrolateral periaqueductal grey by a $\mu$ -opioid. J. Physiol. (Land). 518 (Pt 2), 551-559.
	*	Chudler EH. Response properties of neurons in the caudate-putamen and globus pallidus to noxious and non-noxious thermal stimulation in anesthetized rats. Brain Res. 1998 Nov 23;812( 1- 2):283-8.
	*	Chudler, E.H., Sugiyama, K., Dong, W.K., Nociceptive responses in the neostriatum and globus pallidus of the anesthetized rat, Journal of Neurophysiology, Vol. 69, No. 6, June 1993, 1890-1903.
	*	Church, R.M. (1984). Properties of the internal clock. In Timing and Time Perception. Gibbon, J., Allan, L. (eds.), New York: New York Academy of Sciences, 566-582.
	*	Clarke PB, Franklin KB. Infusions of 6-hydroxydopamine into the nucleus accumbens abolish the analgesic effect of amphetamine but not of morphine in the formalin test. Brain Res. 1992 May 15;580( 1-2): 106-10.
	*	Cody, F.W. and Richardson, H.C> (1977) Trigeminal projections to the cerebellar cortex in the cat. Proc. IEEE Physiological Soc. 1977 41P.
	*	Coghill, R.C., Talbot, J.D., Evans, A.C., Meyer, E., Gjedde, A., Bushnell, M.C., and Duncan, G.H. (1994). Distributed processing of pain and vibration by the human brain. J. Neurosci. 14:4095-4108.
	*	Coghill, R.C., Sang, C.N., Maisog, J.M., and Iadarola, M.J. (1999). Pain intensity processing within the human brain: a bilateral, distributed mechanism. I. Neurophysiol. 82(4). 1934-1943.
	*	Cohen SR, Melzack R. The habenula and pain: repeated electrical stimulation produces prolonged analgesia but lesions have no effect on formalin pain or morphine analgesia. Behav Brain Res. 1993 Apr 30;54(2): 171-8.
Examiner		Date Considered: 1/29/04
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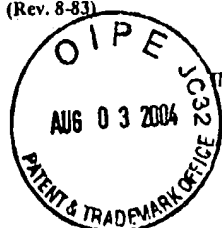
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Hans C. Breiter et al.FILING DATE  
December 4, 2000GROUP  
2862

## OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

S	*	Cohen, M.S., Kosslyn, S.M., Breiter, H.C., DiGirolamo, G.J., Thompson, W.L., Anderson, A.K., Bookheimer, S.Y., Rosen, B.R., Belliveau, J.W. (1996). Changes in cortical activity during mental rotation: A mapping study using functional MRI. Brain 119, 89-100.
	*	Commons, K.G., van Bockstaele, E.I., and Pfaff, D.W. (1999). Frequent colocalization of mu opioid and NMDA-type glutamate receptors at postsynaptic sites in periaqueductal gray neurons. J. Comp. Neurol. 408(4), 549-559.
	*	Corrigal, W.A., and Vaccarino, F.J. (1988). Antagonist treatment in the nucleus accumbens or periaqueductal grey affects heroin self-administration. Pharm. Bioch. and Behavioral. 30, 443-450.
	*	Craig AD, Chen K, Bandy D, Reiman EM. Thermosensory activation of insular cortex. Nat Neurosci. 2000 Feb;3(2): 184-90.
	*	Craig, A.D., Bushnell, M.C., Zhang, E.T., and Blomqvist, A. (1994). A thalamic nucleus specific for pain and temperature sensation. Nature 372, 770-773.
	*	Craig, A.D., Reiman, E.M., Evans, A., and Bushnell, M.C. (1996). Functional imaging of an illusion of pain. Nature 384, 258-260.
	*	Critchley HD, Elliott R, Mathias CJ, Dolan RJ. Neural activity relating to generation and representation of galvanic skin conductance responses: A functional magnetic resonance imaging study. J Neurosci. 2000 Apr 15;20(8):3033-40.
	*	D'Esposito, M., Detre, J.A., Alsop, D.C., Shin, R.K., Atlas, S., and Grossman, M. (1995). The neural basis of the central executive system of working memory. Nature 378(6554), 279-281.
	*	Daghero, A.M., Bradley, E.L. Jr, and Kijssin, I. (1987). Midazolam antagonizes the analgesic effect of morphine in rats. Anesth. Analg. 66(10), 944-947.
	*	Dale, A.M. (1999). Optimal experimental design for event-related fMRI. Human Brain Mapp. 8(2-3), 109-114.
	*	Dalton JA, Feuerstein M, Carlson J, Roglunan K. Biobehavioral pain profile: development and psychometric properties. Pain. 1994 Apr; 57(1):95-107.
	*	Damasio, A.R., Individuals with sociopathic behavior caused by frontal damage fail to respond autonomically to social stimuli, Behavioural Brain Research, 41 (1990), 81-94.
	*	David, A., Blamire, A., & Breiter, H.C. (1994). Functional magnetic resonance imaging. Brit. J. Psychiatry 164, 2-7.
	*	Davidson, R.J., & Sutton, S.K. (1995). Affective neuroscience: The emergence of a discipline. Current Opin. Neurobiology 5, 217-224.
	*	Davidson, R.J. (1998). Affective style and affective disorders: Perspectives from affective neuroscience. Cognition and Emotion 12, 307-330.
	*	Davidson, R.J., and Fox, N.A. (1982). Asymmetrical brain activity discriminates between positive and negative affective stimuli in human infants. Science 218, 1235-1236.
	*	Davidson, R.J., and Fox, N.A. (1988). Frontal brain asymmetrical predicts infants' response to maternal separation. Journal of Abnormal Psychology, Vol. 98, No. 2, 127-131.
	*	Davidson, R.J., Ekman, P., Saron, C.D., Senulis, J.A., and Friesen, W.V. (1990). Approach-withdrawal and cerebral asymmetry: Emotional expression and brain physiology I. J. Personality and Social Psych. 58(2), 330-341.
	*	Davis KD, Kiss ZH, Tasker RR, Dostrovsky JO. Thalamic stimulation-evoked sensations in chronic pain patients and in nonpain (movement disorder) patients. J Neurophysiol. 1996 Mar;75(3): 1026-37.
V	*	Davis KD, Kwan CL, Crawley AP, Mikulis DJ. Event-related fMRI of pain: entering a new era in imaging pain. Neuroreport. 1998 Sep 14;9(13):3019-23.
		Date 1/20/04 Examiner

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(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
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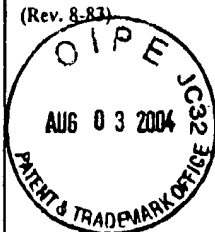
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Davis KD, Kwan CL, Crawley AP, Mikulis DJ. Functional MRI study of thalamic and cortical activations evoked by cutaneous heat, cold, and tactile stimuli. J Neurophysiol. 1998 Sep;80 (3): 1533-46.			
	*		Davis, K.D., Kiss, Z.H., Luo, L., Tasker, R.R., Lozano, A.M., and Dostrovsky, J.O. (1998b). Phantom sensations generated by thalamic microstimulation. Nature. 391(6665), 385-387.			
	*		Decavel, C., and Van den Pol, A.N. ( 1990). GABA: a dominant neurotransmitter in the hypothalamus. J. Comp. Neurol. 302, 1019-1037.			
	*		Derbyshire SW, Jones AK, Cerebral responses to a continual tonic pain stimulus measured using positron emission tomography. Pain 76. 1998 pp. 127-135..			
	*		Derbyshire SW, Jones AK, Oyulai F, Clark S, Townsend D, Firestone LL. Pain processing during three levels of noxious stimulation produces differential patterns of central activity. Pain. 1997 Dec;73(3):431- 45.			
	*		Devinsky O, Morrell MJ, Vogt BA. Contributions of anterior cingulate cortex to behaviour. Brain. 1995 Feb;118 ( Pt 1):279-306.			
	*		DiChiara, G. and Imperato, A. ( 1988). Drugs abused by humans preferentially increase synaptic dopamine concentrations in the mesolimbic system of freely moving rats. Proceedings of the National Academy of Sciences 85, 5274-5278.			
	*		Dill, R.E., and Costa, E. ( 1977). Behavioural dissociation of the enkephalinergic systems of nucleus accumbens and nucleus caudatus. Neuropharmacology 16(5).323-326.			
	*		Drevets, W.C., Videen, T.O., Price, J.L., Preskom, S.H., Carmichael, T., & Raichle, M.E. (1992). A functional anatomical study of unipolar depression. J. Neurosci. 12, 3628-3641.			
	*		Edmister, W.B., Talavage, T.M., Ledden, P.L., and Weisskoff, R.M. (1999). Improved auditory cortex imaging using clustered volume acquisitions. Hum. Brain Map 7(2), 89- 97.			
	*		Ekman, P., Sorenson, E.R., and Friesen, W.V. ( 1969). Pan-cultural elements in facial displays of emotion. Science 164, 86-88.			
	*		Etkoff, N.L. (1984). Selective attention to facial identity and facial emotion. Neuropsychologia 22(3), 281-295.			
	*		Everitt, B.J. (1997). Craving cocaine cues: cognitive neuroscience meets drug addiction research. Trends in Cognitive Sciences 1(1), 1-2.			
	*		Everitt, B.J., Morn, K.A., O'Brien, A., and Robbins, T.W. (1991). The basolateral amygdala-ventral striatal system and conditioned place preference: further evidence of limbic-striatal interactions underlying reward-related processes. J. Neurosci. 42, 1-18.			
	*		Fields HL, Heinricher MM, Mason P. Neurotransmitters in nociceptive modulatory circuits. Annu Rev Neurosci. 1991;14:219-45.			
	*		Fields HL, Malick A, Burstein R. Dorsal horn projection targets of ON and OFF cells in the rostral ventromedial medulla. JNeurophysiol. 1995 Oct;74(4):1742-59.			
	*		Fiez, J.A., Raife, E.A., Balota, D.A., Schwarz, J.P., Raichle, M.E., and Petersen, SoB. (1996). A positron emission tomography study of the short-term maintenance of verbal information. J. Neurosci. 16(2),808-822.			
	*		Fischl, B., Sereno, M.I., Tootell, R.B., and Dale, A.M. (1999). High-resolution intersubject averaging and a coordinate system for the cortical surface. Hum Brain Mapp. 8(4), 272-284.			
	*		Franklin, KB. Analgesia and Abuse Potential: an accidental association or a common substrate? Pharmacol Biochem Behav. 1998 Apr; 59 (4):993-1002.			
✓	*		Franklin, KB. Analgesia and the neural substrate of reward. Neurosci Biobehav Rev. 1989 Summer-Fall; 13(2-3): 149-54			
		Date	1/20/04	Examiner		

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Friston KJ, Holmes AP, Poline JB, Grasby PJ, Williams SC, Frackowiak RS, Turner R. Analysis of fMRI time-series revisited. Neuroimage. 1995 Mar;2(1):45-53.			
	*		Friston, K.J., Holmes, A.P., Worskey, K.I. (1999). How many subjects constitute a study? NeuroImage 10, 1-5.			
	*		Gaffan, D., and Harrison, S. (Aug.1987). Amygdectomy and disconnection in visual learning for auditory secondary reinforcement by monkeys. J. Neurosci. 7, 2285-2292.			
	*		Gaffan, E.A., Gaffan, D., and Harrison, S. (1988). Disconnection of the amygdala from visual association cortex impairs visual reward-association learning in monkeys. J. Neurosci. 8, 3144-3150.			
	*		Gallagher, M., & Chiba, A.A. (1996). The amygdala and emotion. Current Opin. Neurobiology 6, 221-227.			
	*		Gallagher, M., & Holland, PC (Dec. 1994). The amygdala complex: multiple roles in associative learning and attention. Proc. Natl. Acad. Sci. Vol. 91, pp 11771-11776.			
	*		Gao DM, Jeaugey L, Pollak P, Benabid AL. Intensity-dependent nociceptive responses from presumed dopaminergic neurons of the substantia nigra, pars compacta in the rat and their modification by lateral habenula inputs. Brain Res. 1990 Oct 8;529(1-2):315-9.			
	*		Gear, R.W., Aley, K.O., and Levine, J.D. (1999). Pain-induced analgesia mediated by mesolimbic reward circuits. Neurosci. 19(16), 7175-7181.			
	*		Gebhart, G.F., Sandkuhler, J., Thalhammer, J.a., and Zimmermann M. (1984). Inhibition in spinal cord of nociceptive information by electrical stimulation and morphine microinjection at identical sites in midbrain of the cat. J Neurophysiol. 51(1), 75-89.			
	*		George, M.S., Ketter, T.A., Parekh, P.I., Horowitz, B., Herscovitch, P., and Post, R.M. (1995). Brain activity during transient sadness and happiness in healthy women. Amer. J. Psychiatry 152:341-351.			
	*		Gibbon, J., R.M. Church, S. Fairhurst, and Kacelnik, A. (1988). Scalar expectancy theory and choice between delayed rewards. Psychol. Rev. 95, 102-114.			
	*		Glickman SE, Schiff BB. A biological theory of reinforcement. Psychol Rev. 1967 Mar;74(2):81-109.			
	*		Golay X, Kollias S, Stoll G, Meier D, Valavanis A, Boesiger P. A new correlation-based fuzzy logic clustering algorithm for fMRI. Magn Reson Med. 1998 Aug;40(2):249-60.			
	*		Gollub, R.L., Breiter, H.C., Kantor, H., Kennedy, D., Gastfriend, D., Mathew, R.T., Makris, N., Guimaraes, A., Riorden, J., Campbell, T., Foley, M., Hyman, S.E., Rosen, B., and Weisskoff, R. (1998). Cocaine decreases cortical cerebral blood flow but does not obscure regional activation in functional magnetic resonance imaging in human subjects. J. Cereb. Blood Flow Metab. 18(7), 724-734.			
	*		Gracely RH, Kwilosz DM. The Descriptor Differential Scale: applying psychophysical principles to clinical pain assessment. Pain. 1988 Dec;35(3):279-88.			
	*		Guimaraes, A.R., Melcher, J.R., Talavage, T.M., Baker, J.R., Ledden, P., Rosen, B.R., Kiang, N.Y., Fullerton, B.C., and Weisskoff, R.M. (1998). Imaging subcortical auditory activity in humans. Hum Brain Mapp. 6(1):33-41.			
	*		Greden, J.F., Genero, N., Price, L., Feinberg, M., Levine, S., "Facial Electromyography in Depression, Arch. Gen. Psychiatry, Vol. 43, March 1986, pp 269-274.			
	*		Gur, R.C., Erwin, R.J., Gur, R.E., Zwil, A.S., Heimberg, C., Kraemer, H.C., Facial emotion discrimination: II. Behavioral findings in depression, Psychiatry research, 42, 241-251, 1992.			
V	*		Gutstein, H.B., Mansour, A., Watson, Akil, H., and Fields, H.L. (June 1998). Mu and kappa opioid receptors in periaqueductal gray and rostral ventromedial medulla. Neuroreport. 9(8). 1777-1781.			
		Date	1/20/04	Examiner		

Form PTO-1449  
(Rev. 8-4)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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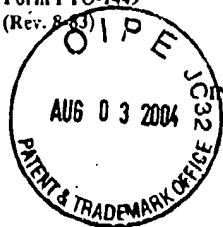
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Gysling, K., Wang, R.Y. (1983). Morphine-induced activation of A10 dopamine neurons in the rat. Brain Res. 277(1), 119-27.			
	*		Haber SN, Fudge JL. The primate substantia nigra and VT A: integrative circuitry and function. Crit Rev Neurobiol. 1997;11(4):323-42.			
	*		Hakan, R.L., and Henriksen, (Oct. 1989). Opiate influences on nucleus accumbens neuronal electrophysiology: dopamine and non-dopamine mechanisms. Journal of Neurosci. 9 (10),3538-3546.			
	*		Hakan, R.L., and Henriksen, S.I. ( 1987). Systematic opiate administration has heterogeneous effects on activity recorded from nucleus neurons in vivo. Neuroscience Lett. 83, 307-312.			
	*		Hamann, S.B., Stefanacci, L., Squire, L.R., Adolphs, R., Tranel, D., Damasio, H., & Damasio, A. (1996). Recognizing facial emotion. Nature 379, 497.			
	*		Hatfield, T., Ran, I.-S., Conley, M., Gallagher, M., & Holland, P. (Aug. 15, 1996). Neurotoxic lesions of basolateral, but not central, amygdala interfere with pavlovian second-order conditioning and reinforcer devaluation effects. J. Neurosci. 16 (16),5256-5265.			
	*		Haxby, J.V., Horwitz, B., Ungerfelder, L.G., Maisog, J.M., Pietrini, P., and Grady, C.L. (Nov. 1994). The functional organization of human extrastriate cortex: a PET-rCBF study of selective attention to faces and locations. J. Neurosci. 14 (11), 6336-6353.			
	*		Heffner, T., Hartman, J., and Seidan, L. (1980). Feeding increases dopamine metabolism in the rat brain. Science 208, 1168-1170.			
	*		Heilman, K.M., Bowers, D., Speedie, L., & Coslett, H.B. (April 1983). The comprehension of emotional and nonemotional prosody. Neurobiology 33(2), 241.			
	*		Heimar, L., Harlan, R.E., Alheid, G.F., Garcia, M.M., and DeOlmos J. (1997). Substantia innominata: a notion which impedes clinical-anatomical correlations in neuropsychiatric disorders. Neuroscience 76(4),957-1006.			
	*		Heimer, L., Alheid, G.F., de Olmos, J.S., Groenewegen, H.J., Haber, S.N., Harlan, R.E., Zahm, D.S. (Summer1997). The accumbens: beyond the core-shell dichotomy. J. Neuropsychiatry Clin. Neurosci. 9(3), 354-81.			
	*		Heinricher MM, Cheng ZF, Fields HL. Evidence for two classes of nociceptive modulating neurons in the periaqueductal gray. J Neurosci. 1987 Jan;7(1):271-8.			
	*		Henriques, J.B., & Davidson, R.J. (1991). Left frontal hypoactivation in depression. J. Abnorm. Psych. 100(4), 535-545.			
	*		Henriques, J.B., & Davidson, R.J. (1990). Regional brain electrical asymmetries discriminate between previously depressed and healthy control subjects. J. Abnorm. Psych. 99(1), 22-31.			
	*		Hernandez, L., and Hoebel, B. (1988). Food reward and cocaine increase extracellular dopamine in the nucleus accumbens as measured by microdialysis. Life Sci. 42, 1705-1712.			
	*		Hollerman, J.R., and Schultz, W. (August 1998). Dopamine neurons report an error in the temporal prediction of reward during learning. Nat Neurosci. 1(4), 304-309.			
	*		Honey CR, Stoessl AJ, Tsui JK, Schulzer M, Calne DB. Unilateral pallidotomy for reduction of parkinsonian pain. J Neurosurg. 1999 Aug; 91 (2): 198-201.			
	*		Hutchison WD, Davis KD, Lozano AM, Tasker RR, Dostrovsky JO. Pain-related neurons in the human cingulate conex. Nat Neurosci. 1999 May;2(5):403-5.			
	*		Iadarola MI, Berman KF, Zeffiro TA, Byas-Smith MG, Oracely RR, Max MB, Bennett OJ. Neural activation during acute capsaicin-evoked pain and allodynia assessed with PET. Brain. 1998 May;121 ( Pt 5):931-47.			
	*		Ingvar M. Pain and functional imaging. Philos Trans R Soc Lond B Biol Sci. 1999 Jul 29;354: 1347-58.			
		Date	1/20/04	Examiner		





## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

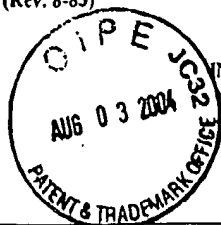
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## U.S. PATENT DOCUMENTS

APPLICANT  
Hans C. Breiter et al.FILING DATE  
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Irwin, W., Davidson, R.J., Lowe, M., Mock, B.J., Sorenson, J.A., & Turski, P.A. (July 1996). Human amygdala activation detected with echo-planar functional magnetic resonance imaging. NeuroReport 7(11), 1765-1769.			
	*		Iversen, S. D., and Mishkin, M. (1970). Preservative interference in monkeys following selective lesions of the inferior prefrontal convexity. Exp. Brain Res. 11, 376-386.			
	*		Jaeger, J., Borod, J.C., & Peselow, E. (1986) Facial expression of positive and negative emotions in patients with unipolar depression. J. Affective Dis. 11,43-50.			
	*		Jensen TS. Opioids in the brain: supraspinal mechanisms in pain control. Acta Anaesthesiol Scand. 1997 Jan;41(1 Pt 2): 123-32.			
	*		Johnson, S. W., and North, R.A. (Feb. 1992). Opioids excite dopamine neurons by hyperpolarization of local interneurons. J. Neurosci. 12(2),483-488.			
	*		Jones AK, Brown WD, Friston KJ, Qi L y , Frackowiak RS. Cortical and subcortical localization of response to pain in man using positron emission tomography. Proc R Soc Lond B Biol Sci. 1991, Apr 22;244( 1309):39-44.			
	*		Jones, A.K., Qi, L. Y ., Fujiwara, T., Luthra, S.K., Ashburner, I., Bloomfield, P., Cunningham, V. J., Itoh, M., Fukuda, H., and Jones, T. ( 1991 a or b). In vivo distribution of opioid receptors in man in relation to the cortical projections of the medial and lateral pain systems measured with positron emission tomography. Neurosci. Lett. 126( 1 ), 25-28			
	*		Jones, B., and Mishkin, M. (1972). Limbic lesion and the problem of stimulus-reinforcement association. Expl. Neurol. 36, 362-377.			
	*		Jonides, J., Smith, E.E., Koeppe, R.A., A wh, E., Minoshima, S., & Mintun, M.A. (June 17, 1993). Spatial working memory in humans as revealed by PET. Nature 363, 623-625.			
	*		Kalivas PW, Nakamura M. Neural systems for behavioral activation and reward. Current Opin Neurobiol. 1999 Apr 9(2): 223- 7.			
	*		Kalyuzhny AE, Arvidsson U, Wu W, Wessendorf MW. (Oct. 15, 1996). $\mu$ -Opioid and $\delta$ -opioid receptors are expressed in brainstem antinociceptive circuits: studies using immunocytochemistry and retrograde tract-tracing. J Neurosci. 16(20), 6490-503.			
	*		Kang W, Wilson SP, Wilson MA. Changes in nociceptive and anxiolytic responses following herpes virus-mediated preproenkephalin overexpression in rat amygdala are naloxone-reversible and transient. Ann NY Acad Sci. 1999 Jun 29;877:751-5.			
	*		Kanwisher, N., McDermott, 1., & Chun, M.M. (June 1997). The fusiform face area: A module in human extrastriate cortex specialized for face perception. 1. Neurosci. 17 (11), 4302-4311.			
	*		Kapur, N., Friston, K.J., Young, A., Frith, C.D., & Frackowiak, R.S.J. (1995). Activation of human hippocampal formation during memory for faces: A PET study. Cortex 31, 99-108.			
	*		Kern MK, Birn RM, Jaradeh S, Jesmanowicz A, Cox R W , Hyde JS, Shaker R. Identification and characterization of cerebral cortical response to esophageal mucosal acid exposure and distention. Gastroenterology. 1998 Dec;115(6):1353-62.			
	*		Killcross, S., Robbins, T.W., and Everitt, B.J. (July 24,1997). Different types of fear-conditioned behaviour mediated by separate nuclei within amygdala. Nature 388, 377-380.			
	*		Kiyatkin, E., and Gratton, A. ( 1994 ). Electrochemical monitoring of extracellular dopamine in nucleus accumbens of rats lever-pressing for food Brain Res. 652, 225-234.			
	*		Konishi S, Nakajima K, Uchida I, Kameyama M, Nakahara K, Sekihara K, Miyashita Y. Transient activation of inferior prefrontal cortex during cognitive set shifting. Nat Neurosci. 1998 May; 1(1):80-4.			
	*		Koob G.F, Sanna PP, Bloom FE. Neuroscience of addiction. Neuron. 1998 Sep. 21(3):467-76.			
	*		Koob, G.F., and Bloom, F.E. (Nov. 1988). Cellular and molecular mechanisms of drug dependence. Science 242, 715- 723.			
	*		Kosslyn, S.M., Pascual-Leone, A., Felician, O., Camposano, S., Keenan, J.P., Thompson, W. L., Ganis, G., Sukel, K.E., and Alpert, N.O.M. (April 1999). The role of area 17 in visual imagery: convergent evidence from PET and rTMS. Science 284(5411).167-170.			
	*		Kreek, M.J., and Koob, G.F. (1998). Drug dependence: stress and dysregulation of brain reward pathways. Drug and Alcohol Dependence 51,23-47.			
	*		Krout KE, Jansen AS, Loewy AD. Periaqueductal gray matter projection to the parabrachial nucleus in rat. J Comp Neurol. 1998 Nov 30;401(4):437-54			
		Date	1/20/04	Examiner		

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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## INFORMATION DISCLOSURE CITATION

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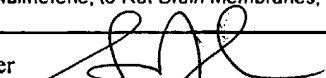
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2862

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Kwong, K.K., Belliveau, J. W., Chester, D.A., Goldberg, I.B., Weiskoff, R.M., Poncelet, B.P., Kennedy, D.N., Hoppel, B.B., Cohen, M.S., Turner, R., Cheng, H.M., Brady, T.J., and Rosen, B.R. Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation. Proc. Natl. Acad. Sci. 89, (June 1992) 5675-5679.			
	*		Lai SH, Fang M. A novel local PCA-based method for detecting activation signals in fMRI. Magn Reson Imaging. 1999 Jul;17(6):827-36.			
	*		Lane, R.D., Reiman, E.M, Ahern, G.L., Schwartz, G.E., & Davidson, R.J. (July 1997). Neuroanatomical correlates of happiness, sadness, and disgust. Amer. J. Psychiatry 154, 926-933.			
	*		LeDoux, J.E. (1993). Emotional memory: In search of systems and synapses. Ann. N. Y. Acad. Sci. 702, 149-157.			
	*		Lee RS, Koob GF, Henriksen SJ. Electrophysiological responses of nucleus accumbens neurons to novelty stimuli and exploratory behavior in the awake, unrestrained rat. Brain Res. 1998 July 20;799(2):317-22.			
	*		Lenz, F.A., Gracely, R.H., Romanoski, A.I., Hope, E.J., Rowland, L.H., and Dougherty, P.M. (1995). Stimulation in the human somatosensory thalamus can reproduce both the affective and sensory dimensions of previously experienced pain. Nature Med. 1 (9), 910-913.			
	*		Leonard, C.M., Rolls, E.T., Wilson, F.A., & Baylis, G.C. (1985). Neurons in the amygdala of the monkey with responses selective for faces. Behav. Brain Res. 15, 159-176.			
	*		London, E.D., Cascella, N.G., Wong, D.F., Phillips, R.L., Danna, R.F., Links, J.M., Herning, R., Grayson, R., Jaffe, J.H., and Wagner, H.N. (June 1990). Cocaine-induced reduction of glucose utilization in human brain. Arch. Gen. Psychiatry 47, 567-574.			
	*		Lynd-Balta, B., and Haber, S.N. (1994). The organization of midbrain projections to the ventral striatum in the primate. Neuroscience 59, (3) 625-640.			
	*		Maldonado, R., Saiardi, A., Valverde, O., Samad, T.A., Roques B.P., Borrelli, E. (Aug. 1997) Absence of opiate rewarding effects in mice lacking dopamine D2 receptors. Nature 388 (6642), 586-589.			
	*		Manning BH, Mayer DJ. The central nucleus of the amygdala contributes to the production of morphine antinociception in the rat tail-flick test. J Neurosci. 1995 Dec;15(12):8199-213.			
	*		Manning BH. A lateralized deficit in morphine antinociception after unilateral inactivation of the central amygdala. J Neurosci. 1998 Nov 15;18 (22):9453-70.			
	*		Mansour, A., Khachaturian, H., Lewis, M.E., Akil, H., and Watson, S.I. (Aug. 1987). Autoradiographic differentiation of mu, delta, and kappa opioid receptors in the forebrain and midbrain. J Neurosci. 7(8), 2445-2464.			
	*		Martin G., Nie Z, Siggins, G.R. (1997). $\mu$ -opioid receptors modulate NMDA receptor-mediated responses in nucleus accumbens neurons. J Neurosci. 17, 11-22.			
	*		Martin WJ, Coffin PO, Altias E, Balinsky M, Tsou K, Walker IM. Anatomical basis for cannabinoid-induced antinociception as revealed by intracerebral microinjections. Brain Res. 1999 Mar 20;822(1-2):237-42.			
	*		Martino, J.L., Hardy, P., Felino, A., Huret, J.D., Mazoyer, B., Attar-Levy, D., Pappata, S., & Syrota, A. (Oct. 1990). Left prefrontal glucose hypometabolism in the depressed state: A confirmation. Amer. J. Psychiatry 147, 1313-1317.			
	*		Mathews, R.T., and German, D.C. (1984). Electrophysiological evidence for excitation of rat ventral tegmental area dopamine neurons by morphine. Neuroscience 11 (3), 617-625.			
	*		Matthes, H. W., Maldonado, R., Simonin, F., Valverde, O., Slowe, S., Kitchen, I., Befort, K., Dierich, A., Le Meur, M., Dolle, P., Tzavara, E., Hanoune, J., Roques, B.P., and Kieffer BL. (1996). Loss of morphine-induced analgesia, reward effect and withdrawal symptoms in mice lacking the $\mu$ -opioid-receptor gene. Nature.383(6603), 819-823.			
	*		Maximilian, V.A., Prohovnik, I., and Risberg, I. (1980). Cerebral hemodynamic response to mental activation in normo- and Hypercapnia. Stroke 11 (4), 342-347.			
	*		McCarthy, G., Blamire, A.M., Puce, A., Nobre, A., Bloch, G., Hyder, F., Goldman-Rakic, P., and Shulman, R.G. (1994). Functional magnetic resonance imaging of human prefrontal cortex activation during a spatial working memory task. Proc Natl Acad Sci USA 91, 8690-8694.			
	*		McCullough, L., Cousins, M., and Salamone, J. (1993). The role of nucleus accumbens dopamine in responding on a continuous reinforcement operant schedule: a neurochemical and behavioral study. Pharmacol. Biochem. Behav. 46, 581-586.			
	*		McFarland, D.J., and Sibly, R.M. (1975). The behavioral final common path. Philos. Trans. R. Soc. Lond. B. Biol. Sci. 270(907), 265-293.			
	*		McLellan, A.T., Luborsky, L., and Woody, G.E. (1980). An improved diagnostic evaluation instrument for substance abuse patients: the addiction severity index. Journal of Nervous and Mental Disorders 168, 27-33.			
	*		Mellers, B.A., Schwartz, A., Ho, K., and Ritov, I. (1997). Decision affect theory: emotional reactions to the outcomes of risky options. Psychological Sciences 8(6), 423-429.			
	*		Mesulam, M.-M. (1990). Large-scale neurocognitive networks and distributed processing for attention, language, and memory. Annals of Neurology 28, 597-613.			
	*		Michel, M.E., et al., Binding of a New Opiate Antagonist, Nalmefene, to Rat Brain Membranes, Meth and Find Exptl Clin Pharmacol 1985; 7(4): 175-177			
		Date 1/20/04	Examiner 			

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(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
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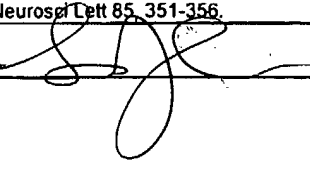
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2862

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Mirenowicz, J., and Schultz, W. (1994). Importance of unpredictability for reward responses in primate dopamine neurons. J. Neurophysiol. 72(2), 1024-1027.			
	*		Mirenowicz, J., and Schultz, W. (1996). Preferential activation of midbrain dopamine neurons by appetitive rather than aversive stimuli. Nature 379, 449-51.			
	*		Mitchell JM, Basbaum AI, Fields HL. A locus and mechanism of action for associative morphine tolerance. Nat Neurosci. 2000 Jan;3(1):47-53.			
	*		Morgan MJ, Franklin KB. 6-Hydroxydopamine lesions of the ventral tegmentum abolish D-amphetamine and morphine analgesia in the formalin test but not in the tail flick test. Brain Res. 1990 Jun 11;519(1-2):144-9.			
	*		Morris, J.S., Frith, C.D., Perrett, D.I., Rowland, D., Young, A.W., Calder, A.J., & Dolan, R.J. (1996). A differential neural response in the human amygdala to fearful and happy facial expression. Nature 383, 812-815.			
	*		Mouton LJ, VanderHorst VG, Holstege G. Large segmental differences in the spinal projections to the periaqueductal gray in the cat. Neurosci Lett. 1997 Nov 28;238(1-2): 1-4.			
	*		Ngan SC, Hu X. Analysis of functional magnetic resonance imaging data using self-organizing mapping with spatial connectivity. Magn Reson Med. 1999 May;41(5):939-46.			
	*		Nowicky, M.C., Walters, J.R., and Roth, R.H. (1978). Dopaminergic neurons: effect of acute and chronic morphine administration on single cell activity and transmitter metabolism. J. Neural Trans. 42, 99-116.			
	*		O'Donnell P, Grace AA. Dopaminergic reduction of excitability in nucleus accumbens neurons recorded in vitro. Neuropsychopharmacology. 1996 Jul;15(1):87-97.			
	*		Ogawa, S., Lee, T., Nayak, A., and Glynn, P. (1990). Oxygenation-sensitive contrast in magnetic resonance image of rodent brain at high magnetic fields. Magn Reson Med. 14, 68-78.			
	*		Ogawa, S., Tank, D. W., Menon, R., Ellermann, J.M., Kim, S.G., Merkle, H., and Ugurbil, K. (1992). Intrinsic signal changes accompanying sensory stimulation: functional brain mapping using MRI. Proc. Natl. Acad. Sci. USA 89, 5951-5955.			
	*		Oldfield, R.C. (1971). The assessment and analysis of handedness: the Edinburgh inventory. Neuropsychologia 9, 97-113.			
	*		Orzi, F., Passarelli, F., La Riccia, M., Di Grezia, R., Pontieri, F.E. (1996). Intravenous morphine increases glucose utilization in the shell of the rat nucleus accumbens. Eur. J. Pharmacol. 302(1-3), 49-51.			
	*		Pardo, J. V., Pardo, P.J., & Raichle, M.E. (1993). Neural correlates of self-induced dysphoria. Amer. J. Psychiatry 150,713-719.			
	*		Paulesu, E., Frith, C.D., and Frackowiak, R.S.J. (1993). The neural correlates of the verbal components of working memory. Nature 362, 342-345.			
	*		Pay S, Barasi S. A study of the connections of nociceptive substantia nigra neurones. Pain. 1982 Jan;12(1):75-89.			
	*		Peckys, D., and Landwehrmeyer, a.B. (1999). Expression of mu, kappa, and delta opioid receptor messenger RNA in the human CNS: a P in situ hybridization study. Neuroscience 88(4), 1093-1135.			
	*		Peoples, L.L., and West, M.O. (1996). Phasic firing of single neurons in the rat nucleus accumbens correlated with the timing of intravenous cocaine self-administration. J. Neurosci. 16(10), 3459-3473.			
	*		Pettil, H.O., Ettenberg, A., Bloom, F.E., and Koob, G.F. (1984). Destruction of dopamine in the nucleus accumbens selectively attenuates cocaine but not heroin self-administration in rats. Psychopharmacology (Berlin) 84(2), 167-173.			
	*		Petrides, M., Alivisatos, B., Meyer, E., and Evans, A.C. (1993). Functional activation of the human frontal cortex during the performance of verbal working memory tasks. Proc. Natl. Acad. Sci. USA 90, 878-882.			
	*		Pfaffmann, C., Norgren, R., and Grill, H.J. (1977). Sensory affect and motivation. Ann. NY Acad. Sci. 290, 18-34.			
	*		Phillips, A., Atkinson, L., Blackburn, J., and Blaha, C. (1993). Increased extracellular dopamine in the nucleus accumbens of the rat elicited by a conditional stimulus for food: an electrochemical study. Can. J. Physiol. Pharmacol. 71, 387-393.			
	*		Piepponen, T.P., Honkanen, A., Kivastik, T., Zharkovsky, A., Turtia, A., Mikkola, J.A., Ahtee, L. (1999). Involvement of opioid $\mu$ 1-receptors in opioid-induced acceleration of striatal and limbic dopaminergic transmission. Pharmacol. Biochem. Behav. 63(2), 245-52.			
	*		Porrino, L.J., Crane, A.M., and Goldman-Rakic, P.S. (1981). Direct and indirect pathways from the amygdala to the frontal lobe in rhesus monkeys. J. Comp. Neurol. 198, 121-136.			
	*		Price DD, Bush FM, Long S, Harkins SW. A comparison of pain measurement characteristics of mechanical visual analogue and simple numerical rating scales. Pain. 1994 Feb;56(2):217-26.			
	*		Puce, A., Allison, T., Asgari, M., Gore, J.C., & McCarthy, G. (1996). Differential sensitivity of human visual cortex to faces, letterstrings, and textures: A functional magnetic resonance imaging study. J. Neurosci. 16, 5205-5215.			
	*		Puce, A., Allison, T., Gore, J.C., & McCarthy, G. (1995). Face-sensitive regions in human extrastriate cortex studied by functional MRI; Journal of Neurophysiology, Vol. 74 (3), 1192-1199.			
	*		Radhakishun, F., van Rec, I., and Westerink, B. (1988). Scheduled eating increases dopamine release in the nucleus accumbens of food-deprived rats as assessed with on-line brain dialysis. Neurosci Lett 85, 351-356.			
		Date	1/20/04	Examiner		

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
SS	*		Rainville, P., Duncan, G.H., Price, D.D., Carrier, B., and Bushnell, M.C. (1997). Pain affect encoded in human anterior cingulate but not somatosensory cortex. <i>Science</i> 277 (5328), 968-971.			
	*		Rasia-Filho AA, Londero RG, Achaval M. Functional activities of the amygdala: an overview. <i>J Psychiatry Neurosci.</i> 2000 Jan;25(1): 14-23.			
	*		Reese, T. G., Davis, T. L., and Weisskoff, R.M. (1995). Automated shimming at 1.5T using echo planar image frequency maps. <i>J. Magn. Reson. Imaging</i> 5, 739-745.			
	*		Reiman, E.M., Lane, R.D., Ahern, G.L., Schwartz, G.E., Davidson, R.J., Friston, K.J., Yun, L.-S., & Chen, K. (1997). Neuroanatomical correlates of externally and internally generated human emotion. <i>Amer. J. Psychiatry</i> 154, 918-925.			
	*		Richardson, N., and Gratton, A. (1996). Behavior-relevant changes in nucleus accumbens dopamine transmission elicited by food reinforcement: an electrochemical study in rat. <i>J. Neurosci.</i> 16, 8160-8169.			
	*		Robbins, T. W., and Everitt, B.J. (1996). Neurobehavioral mechanisms of reward and motivation. <i>Curr Opin in Neurobiology</i> 6, 228-236.			
	*		Roberts, D.C., Koob, G.F., Klonoff, P., and Fibiger, H.C. (1980). Extinction and recovery of cocaine self-administration following 6-hydroxydopamine lesions of the nucleus accumbens. <i>Pharmacol. Biochem. Behav.</i> 12(5), 781-787.			
	*		Robinson, T. E., & K.C. BelTidge. 1993. The neural basis of drug craving; an incentive- sensitization theory of addiction. <i>Brain Research Rev.</i> 18, 247-291.			
	*		Rogers RD, Owen AM, Middleton HC, Williams EJ, Pickard JO, Sahakian BJ, Robbins TW. Choosing between small, likely rewards and large, unlikely rewards activates inferior and orbital prefrontal cortex. <i>J Neurosci.</i> 1999 Oct 15; 19(20):9029-38.			
	*		Romp, P.-P., and Shizgal, P. (1986). Electrophysiological characteristics of neurons in forebrain regions implicated in self-stimulation of the medial forebrain bundle in the rat. <i>Brain Res.</i> 364, 338-349.			
	*		Ross, E.D., & Mesulam, M.M. (1979). Dominant language functions of the right hemisphere?; Prosody and emotional gesturing. <i>Arch. Neurology</i> 36, 144-148.			
	*		Ryding, E., Eriksson, M.B.E., Rosen, I., and Ingvar, D.H. (1985). Regional cerebral blood flow (rCBF) in man during perception of radiant warmth and heat pain. <i>Pain</i> 22, 353-362.			
	*		Saade NE, Atweh SF, Bahuth NB, Jabbur SJ. Augmentation of nociceptive reflexes and chronic deafferentation pain by chemical lesions of either dopaminergic terminals or midbrain dopaminergic neurons. <i>Brain Res.</i> 1997 Mar 14;751(1):1-12.			
	*		Sackeim, H.A., Prohovnik, I., Moeller, J.R., Brown, R.P., Aptler, S., Prudic, J., Devanand, D.P., & Mukherjee, S. (1990). Regional cerebral blood flow in mood disorders. <i>Arch. Gen. Psychiatry</i> 47, 60-70.			
	*		Salamone, I.D., Cousins, M.S., and Snyder, B.I. (1997). Behavioral functions of nucleus accumbens dopamine: empirical and conceptual problems with the anhedonia hypothesis. <i>Neurosci. Biobehav. Rev.</i> 21:341-59.			
	*		Salamone, J., Cousins, M., McCullough, L., Cariero, D., and Berkowitz, R. (1994). Nucleus accumbens dopamine release increases during instrumental lever pressing for food but not free food consumption. <i>Pharmacol. Biochem. Behav.</i> 49, 25-31.			
	*		Sandyk R, Bamford CR, Iacono RP. Pain and sensory symptoms in Parkinson's disease. <i>Int J Neurosci.</i> 1988 Mar;39(1-2): 15-25.			
	*		Schlaepfer, T.E., Strain, E.C., Greenberg, B.D., Preston, K.L., Lancaster, E., Bigelow, G.E., Barta, P.E., and Pearson, G.D. (1998). Site of opioid action in the human brain: mu and kappa agonists' subjective and cerebral blood flow effects. <i>Am. J. Psychiatry</i> 155(4), 470-473.			
	*		Schultz, W., Dayan, P., and Montague, P.R. (1997). A neural substrate of prediction and reward. <i>Science</i> 275, 1593-1599.			
	*		Schultz et al. (1995). In <i>Models of Information Processing in the Basal Ganglia</i> , Houk, J.C., Davis, J.L., and Beiser, D.G. (eds.) MIT Press, Cambridge, MA, 233-248.			
	*		Schultz, W., Apicella, P., and Ljungberg, T. (1993). Responses of monkey dopamine neurons to reward and conditioned stimuli during successive steps of learning a delayed response task. <i>J. Neurosci.</i> 13(3), 900-913.			
	*		Schultz, W., and Romo, R. (1990). Dopamine neurons of the monkey midbrain: contingencies of responses to stimuli eliciting immediate behavioral reactions. <i>J. Neurophysiol.</i> 63, 607-624.			
	*		Schultz, W. (1986). Responses of midbrain dopamine neurons to behavioral trigger stimuli in the monkey. <i>Journal of Neurophysiology</i> 56, 1439-1461.			
	*		Schultz, W. (1997). Dopamine neurons and their role in reward mechanisms. <i>Curr. Opin. Neurobiol.</i> 7, 191-197.			
	*		Schultz, W., Apicella, P., Scamati, E., and Ljungberg, T. (1992). Neuronal activity in monkey ventral striatum related (to the expectation of reward. <i>J. Neurosci.</i> 12, 4595-4610.			
	*		Seidman, L.J., Breiter, H.C., Goodman, J.M., Goldstein, J.M., Woodruff, P. W.R., O'Craven, K., Savoy, R., Tsuang, M.T., & Rosen, B.R. (1998). A functional magnetic resonance imaging study of auditory vigilance with low and high information processing demands. <i>Neuropsychology</i> 12, 505-518.			
	*		Sell LA, Momi J, Beam I, Frackowiak RS, Friston KJ, Dolan RJ. Activation of reward circuitry in human opiate addicts. <i>Eur J Neurosci.</i> 1999 Mar; 11(3): 1042-8.			
		Date	1/20/04	Examiner		

Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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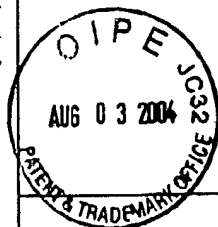
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Hans C. Breiter et al.FILING DATE  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)						
5	*		Sergeant, J., Ohta, S., & MacDonald, B. (1992). Functional neuroanatomy of face and object processing. Brain 115, 15-36.			
	*		Serratrice O, Michel B. Pain in Parkinson's disease patients. Rev Rhum Engl Ed. 1999 Jun;66(6):331-8.			
	*		Shi, C., Davis, M. Pain Pathways involved in fear conditioning measured with fear-potentiated startle: lesion studies, The Journal of Neuroscience, Jan. 1, 1999, 19(1): 420-430.			
	*		Shizgal P. Neural basis of utility estimation. Current Opin Neurobiol. 1997 Apr;7(2): 198-208.			
	*		Shizgal, P., Schindler, D., and Rompre, P.-P. (1989). Forebrain neurons driven by rewarding stimulation of the medial forebrain bundle in the rat: comparison of psychophysical and electrophysiological estimates of refractory periods. Brain Res. 499, 234-248.			
	*		Sikes, R.W., and Vogt, B.A. (1992). Nociceptive neurons in area 24 of rabbit cingulate cortex. J Neurophysiol. 68(5): 1720-1732.			
	*		Silfverskiold, P., & Risberg, J. (1989). Regional cerebral blood flow in depression and mania. Arch. Gen. Psychiatry 46, 253-259.			
	*		Spiegler, B.J., Mishkin, M. (1981). Evidence for the sequential participation of inferior temporal cortex and amygdala in the acquisition of stimulus-reward associations. Behav. Brain Res. 3, 303-317.			
	*		Spinoza, B. The Ethics - Part III: On the origin and nature of the emotions. In: The Ethics. Elwes, R.H.M. (Ed). 1883 Princeton Univ. Press, Princeton, New Jersey pp1-132.			
	*		Stein, E.A., Pankiewicz, J., Harsch, H.H., Cho, I.K., Fuller, S.A., Hoffmann, R.G., Hawkins, M., Rao, S.M., Bandettini, P.A., and Bloom, A.S. (1998). Nicotine-induced limbic cortical activation in the human brain: a functional MRI study. Am. J. Psychiatry 155(8), 1009-1015.			
	*		Stern, C.E., and Passingham, R.E. (1996). The nucleus accumbens in monkeys (Macaca fascicularis): II Emotion and motivation. Behav. Brain Res. 75, 179-193.			
	*		Sutton, J.P., and Breiter, H.C. (1994). Neural scale invariance: an integrative model with implications for neuropathology. World Conference on Neural Networks. 4, 667-672.			
	*		Sutton, S.K., and Davidson, R.J. (1997). Prefrontal brain symmetry: a biological substrate of the behavioral approach and inhibition systems. Psychological Science 8(3), 204-210.			
	*		Svoboda, K.R., Adams, C.E., and Lupica, C.R. (1999). Opioid receptor subtype expression defines morphologically distinct classes of hippocampal interneurons. J. Neurosci. 19(1), 85-95.			
	*		Talbot, I.D., Marrett, S., Evans, A.C., Meyer, E., Bushnell, M.C., and Duncan, G.H. (1991). Multiple representations of pain in human cerebral cortex. Science 251, 1355-1358.			
	*		Talairach, J., and Tournoux, P. (1988). Co-planar Stereotaxic Atlas of the Human Brain Thieme Medical Publishers, New York, 2 pgs.			
	*		Thut, G., Schultz, W., Roelcke, U., Nienhusmeier, M., Missimer, I., Maguire, R.P., and Leenders, K.L. (1997). Activation of the human brain by monetary reward. NeuroReport 8, 1225-1228.			
	*		Toile TR Kaufman U1 T, Siessmeier T, Lautenbacher S, Berthel A, Munz F, Zieglerberger W, Willoch F, Schwaiger M, Conrad B, Bartenstein P. Region-specific encoding of sensory and affective components of pain in the human brain: a positron emission tomography correlation analysis. Ann Neurol. 1999 Jan;45(1):40-7.			
	*		Tootell RB, Hadjikhani N. Attention-brains at work! Nat Neurosci. 2000 Mar;3(3):206-208.			
	*		Tootell, R.B., Dale, A.M., Sereno, M.I., and Malach, R. (1996). New images from human visual cortex. Trends Neurosci. 19(11), 481-489.			
	*		Tootell, R.B.H., Reppas, J.B., Kwong, K.K., Malach, R., Born, R.T Brady, T.J., Rosen, B.R., and Belliveau, J.W. (1995). Functional analysis of human MT and related visual cortical areas using magnetic resonance imaging. J. Neurosci. 15, 3215-3230.			
	*		Treede RD, Meyer RA, Raja SN, Campbell IN. Evidence for two different heat transduction mechanisms in nociceptive primary afferents innervating monkey skin. J Physiol (Lond). 1995 Mar 15;483 ( Pt 3):747-58.			
	*		Tremblay L, Schultz W. Relative reward preference in primate orbitofrontal cortex. Nature. 1999 Apr 22;398(6729):704-8.			
	*		Tseng, L.F. and Wang, Q. (1992). Forebrain sites differentially sensitive to $\beta$ -endorphin and morphine for analgesia and release of Met-enkephalin in the pentobarbital-anesthetized rat. J. Pharmacol. Exp. Ther. 261(3), 1028-1036.			
	*		Turken AU, Swick D. Response selection in the human anterior cingulate cortex. Nat Neurosci. 1999 Oct;2(10):920-4.			
	*		Urban MG, Zahn PK, Oebhart OF. Descending facilitatory influences from the rostral medial medulla mediate secondary, but not primary hyperalgesia in the rat. Neuroscience. 1999 May;90(2):349-52.			
	*		Uytenhoeve, P., Portelange, P., Jacquy, J., Charles, G., Linowski, P., & Mendlewicz, J. (1983). Regional cerebral blood flow and lateralized hemispheric dysfunction in depression. Brit. J. Psychiatry 143, 128-132.			
	*		Vaccarino, F.I., Bloom, F.E., and Koob, G.F. (1985). Blockade of nucleus accumbens opiate receptors attenuates the intravenous heroin reward in the rat. Psychopharmacology 86, 37-42.			
		Date	1/2/04	Examiner		



Form PTO-1449  
(Rev. 8-83)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
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2862

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER								DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE*
SS	*	3	9	9	8	2	0	9		12/21/76	Macvaugh			
	*	5	0	1	1	8	4	6		4/30/91	Gittos et al.			
	*	5	1	8	9	0	6	4		2/23/93	Blum et al.			
	*	5	5	5	2	4	0	6		9/3/96	Mendelson et al.			
	*	5	5	5	9	1	2	5		9/24/96	Kulagowski et al.			
	*	5	6	5	6	2	6	7		8/12/97	Sagen et al.			
	*	5	9	2	5	6	3	4		7/20/99	Olney			
	*	6	0	1	5	7	8	6		1/18/00	Mascarenhas et al.			
	*	6	0	2	5	3	3	2		2/15/00	Mascarenhas et al.			
	*	6	0	2	5	3	6	8		2/15/00	Mascarenhas et al.			
	*	6	0	9	9	3	1	9		8/8/00	Zaltman et al.			
	*	5	2	3	4	6	8	0		8/10/93	Rogers, Jr. et al.			
	*	5	3	2	0	8	2	5		6/14/94	Kung			
	*	5	3	2	4	5	0	4		6/28/94	Roger, Jr. et al.			
	*	5	3	9	7	5	6	3		3/14/95	Rogers, Jr. et al.			
	*	5	5	7	4	1	4	0		11/12/96	Pollack et al.			
	*	5	6	5	9	0	4	1		8/19/97	Pollack et al.			
	*	5	8	5	8	3	2	7		1/12/99	Pollack et al.			
	*	5	9	5	8	5	9	6		9/28/99	Renshaw et al.			

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